Burkina Faso - BRIGHT I

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Overview

Identification

COUNTRY
Burkina Faso

EVALUATION TITLE
BRIGHT I

EVALUATION TYPE
Independent Impact Evaluation

ID NUMBER
DDI-MCC-BFA-MPR-BRIGHT-2009-v1.1

Version

VERSION DESCRIPTION
Anonymized dataset for public distribution

Overview

ABSTRACT
Overview of the Evaluation

The impact evaluation sought to answer three key questions:

(1) What was the impact of the program on school enrollment?

(2) What was the impact of the program on test scores?

(3) Were the impacts different for girls than for boys?

In this particular case, to estimate the program's impacts, we assessed how children in BRIGHT villages fared relative to how they would have fared had BRIGHT not been implemented. This assessment is important because even in the absence of BRIGHT, it is likely that enrollment would have increased in the 132 villages in which it was implemented. School construction and enrollment both were increasing in the period prior to the implementation of BRIGHT, and the government of Burkina Faso launched a program, Plan Decennal de Developpement de l'Education de Base (PDDEB) for the period 2002-2011 PDDEB's goals include increased access to schooling and the promotion of girls' education. Moreover, during 2007–2008, the total number of children enrolled in school rose in the 10 provinces in which BRIGHT was implemented—in the 132 BRIGHT villages and the remaining villages as well.

Hence, our ability to assess the program's success turns on the issue of whether, and the extent to which, we can ascertain what part of the improvement in educational outcomes in the 132 BRIGHT villages was due to the program itself and what part would have happened even if the program had not been implemented.

Summary of Results

In general, the main conclusions are that BRIGHT had about a 20 percentage point positive impact on girls' primary school enrollment, and had positive impacts on Math and French test scores for both girls and boys. The evaluator was unable to separately estimate the impact of each component of the intervention (schools, textbooks, etc.)

EVALUATION METHODOLOGY
Regression Discontinuity Design

UNITS OF ANALYSIS
Individuals, Households, School.

KIND OF DATA
Sample survey data [ssd]

TOPICS

Topic	Vocabulary	URI
Education	MCC Sector	
Gender		

KEYWORDS
Education, Primary school, Literacy, Girls' enrollment, Latrine, Water pump, Rations, Textbooks

Coverage

GEOGRAPHIC COVERAGE
Burkina Faso

UNIVERSE
Households with girls 5 - 12 years old, in 287 villages of Burkina Faso.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
Mathematica Policy Research, Inc.	

FUNDING

Name	Abbreviation	Role
Millennium Challenge Corporation	MCC	

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Millennium Challenge Corporation	MCC		Review of Metadata

DATE OF METADATA PRODUCTION
2014-01-13

DDI DOCUMENT VERSION
Version 1.1 (December 2013). This version is more detailed than version 1.

DDI DOCUMENT ID
DDI-MCC-BFA-MPR-BRIGHT-2009-v1.1

MCC Compact and Program

COMPACT OR THRESHOLD
Burkina Faso Threshold (2005-2008)

PROGRAM
The evaluation covers the Burkina Faso Threshold's BRIGHT program.

MCC SECTOR
Education (Edu)

PROGRAM LOGIC

The official name of the BRIGHT program is "Burkinabe Response to Improve Girl's Chances to Succeed." The BRIGHT program was designed to improve the educational outcomes of children in Burkina Faso. It focused on girls in particular and was implemented in 132 rural villages throughout the 10 provinces of the country in which girls' enrollment rates were lowest. It consisted of constructing primary schools with three classrooms and implementing a set of complementary interventions. These included inputs such as separate latrines for boys and girls; canteens; take-home rations and textbooks; and soft components, such as a mobilization campaign, literacy training, and capacity building among local partners.

PROGRAM PARTICIPANTS

Children, school officials, and household heads in 132 villages of Burkina Faso.

Sampling

Study Population

Households with girls 5 - 12 years old, in 287 villages of Burkina Faso.

Sampling Procedure

The sample frame comprised 30 households within each of the 293 villages that applied to the program, including all of the villages in the participant and comparison groups for this study. Data collectors, however, were unable to locate two villages. This is likely due to villages whose names differed either because of the dialect or an incorrect spelling recorded on the application form. As a result, 291 villages were included in the surveys.

The analysis file excluded four additional villages. Two were excluded because they were the only villages that applied for the program from their department and so were not eligible for this type of analysis. An additional two villages were excluded because no data were reported for them.

Once located, 30 households with school-age girls (5 to 12 years old) were randomly selected to be surveyed in each village. Households in this study are defined as a group of persons, living together (in a common physical space), working together under the authority of a person called ?head of household,? and taking their meals together, or from the same supply of food. The members of household must have lived together in this fashion during at least 9 of the previous 12 months.

To develop the village-level household sampling frame, data collectors first conducted a complete census of households in each village. In that census, they identified households with school-age girls and collected information about the household's access to beasts of burden. Once the sampling frame at the village level was complete, it was stratified by access to beasts of burden, which served as a proxy for wealth. Three strata were identified—those who owned at least one beast of burden, those who did not own but had access to one, and those who neither owned nor had access to one. This method of stratification was suggested by the University of Ouagadougou in order to ensure a representative household sample, under hypothesis that the means of production is positively correlated with income. From each of these strata, 10 households were chosen to be surveyed. For each stratum, the selection was done by writing the names of each head of an eligible household on a piece of paper, placing those pieces of paper in a hat, and then drawing 10 names. The selection process was carried out in a public manner in each village.

To develop the village-level school sampling frame, up to three schools for each village were chosen. By speaking with the village elders, data collectors first determined the total number schools, if any, that children from that village attended regularly. The three schools closest to the village center within 10 kilometers then
were selected to be surveyed. This process yielded 360 schools. No further sampling was conducted.

Deviations from Sample Design

As described above, we were unable to survey four of the 293 applicant villages in our household survey. In addition, two villages were the only villages in their department, making it impossible to create the relative score variable needed for the RD design. As a result, we dropped these six villages from consideration in our analysis and focused on the 287 villages for which we had meaningful applicant and household survey data.

Response Rate

The response rate for the household survey was 97.3 percent. This was calculated by dividing the total number of households who responded (8,491) by the number of households sampled for the located villages (8,730). Two unlocated villages were not included in this calculation.

The response rate for the school survey is 99.2 percent. This was calculated by dividing the total number of schools who responded (367) by the total number of schools identified in the household survey as having children enrolled (370).

Weighting

Eligibility weights applied to application forms submitted by each of the 293 villages:

QUESTION SCORING
N°1 .... 1 point per girl
N°2 .... 1 point per girl
N°3 .... 1 point per girl
N°4 .... +1 point if between 0 and 5 km and- 1 point for 6 km or more
N°5 .... 1 point per student
N°6 .... +1 if there are no rooms and -1 if there are
N°7 .... +1 for each village between 0 and 5 km and -1 for each village of 6km or more
N°8 .... -1 for each existing school and +1 if there are none
N°9 .... +1 if between 0 and 5 km -1 if 6 km or more
N°10 .... 1 point per girl
N°11 .... +1 if between 0 and 20 km and -1 if 21 km or more
N°12 .... + 1 per student
N°13 .... Not included in scoring

Questionnaires

Overview

School Questionnaire:
School information panel, school characteristics, school personnel characteristics module, school physical structure, and student attendance roster.

Household Questionnaire:
The household questionnaire includes household characteristics, household listing form, education module, child labour module, math assessment, and French assessment.

The household questionnaire drew heavily from several existing questionnaires widely used in developing countries.

Data Collection

Data Collection Dates

Start	End	Cycle
2007-02	2007-04	Pilot household survey in 10 villages
2007-10	2008-04	School surveys in 293 communities
2008-01	2008-04	Household survey in 293 villages

Questionnaires

School Questionnaire:
School information panel, school characteristics, school personnel characteristics module, school physical structure, and student attendance roster.

Household Questionnaire:
The household questionnaire includes household characteristics, household listing form, education module, child labour module, math assessment, and French assessment.

The household questionnaire drew heavily from several existing questionnaires widely used in developing countries.

Data Collectors

Name	Abbreviation	Affiliation
Jean Pierre Sawadogo, Robert Ouedraogo, and Pam Zahonogo.		University of Ouagadougou

Supervision

To carry out the data collection activities MPR selected a team of researchers from the University of Ouagadougou, led by Jean Pierre Sawadogo, Robert Ouedraogo, and Pam Zahonogo. The data collection firm was responsible for the following:

1. Translating and pretesting the questionnaire
2. Writing Terms of Reference and contracts for the field enumerators and controllers
3. Hiring and training field enumerators and controllers
4. Ensuring proper dispatch of the field enumerators and controllers to the survey sites
5. Undertaking field supervision during the data collection to identify and correct problems
6. Maintaining constant communication with the MPR team by sending biweekly reports on response rates and rapidly communicating any problems encountered

Prior to the start of each round of data collection, the University team conducted interviewer training.

Data Processing

Data Editing

Following data collection, the data were entered and edited by the University of Ouagadougou team using SPSS statistical analysis software. Preliminary data sets were provided to MPR for extensive data checking. The MPR team reviewed the data for completeness, internal consistency, and to determine if the match between household and school data was done correctly. In particular, because of its importance to the central research question, we focused on reconciling data for children identified as being enrolled in school during the household interview but not found on the school attendance roster, and children found on the school attendance roster but not on any household survey. These errors occurred for a variety of reasons, including interviewers not following the procedure and illegible writing.

Other Processing

Following data collection, the data were entered and edited by the University of Ouagadougou team using SPSS statistical analysis software.

Data Appraisal

No content available